

REMARKS/ARGUMENTS

1. **Introduction**

In the present amendment, claims 1-6, 9 and 10 are amended, claim 8 is cancelled and new claims 11-31 have been added. Claim 1 is the only independent claim. Applicant respectfully requests reconsideration of the application in view of the foregoing amendments and the following arguments.

2. **Amendments to the Specification**

Paragraph [0022] has been amended to correct minor typographical errors. In particular, lines 6 and 7 of this paragraph have been amended by replacing “product” by - -project- -.

3. **Amendments to the Claims**

The preamble of claim 1 has been amended to specify that the activity under consideration is an “industrial or infrastructure development activity” as supported by original claim 5.

The preamble of claim 1 has been further amended to specify that the impact of the activity is related to “sustainability of an enterprise or institution”, as supported at paragraph [0005], line 6 of the specification.

Paragraph (a) of claim 1 has been amended to recite the step of “identifying a plurality of categories ...”, as supported by original claim 5 and by paragraph [0014] and Figure 1.

New paragraph (b) of claim 1 is supported at paragraph [0008], lines 9-10.

New paragraph (c) of claim 1 is supported at paragraph [0015], lines 1-4 and Figure 1.

New paragraph (f) of claim 1 is supported by original claim 1, paragraph [0028], for example at line 9, and by Figures 1 and 2.

New paragraph (g) of claim 1 is supported by original claim 1, paragraph [0028], for example at line 11, and by Figures 1 and 2.

The amendments to claims 2-6, 9 and 10 have been made largely for consistency with amended claim 1.

New claims 11 and 18 are supported at paragraph [0015], lines 2 to 4.

New claims 12-17 and 19-22 are supported at paragraph [0014] and Figure 1.

New claim 23 is supported at paragraph [0015], for example lines 1 and 2, and by Figure 1.

New claim 24 is supported at paragraph [0021], for example at line 5.

New claim 25 is supported at paragraph [0016], for example at lines 3 to 4.

New claim 26 is supported at paragraph [0020], for example at lines 4 to 6.

New claims 27 to 30 are supported at paragraphs [0023] and [0026].

New claim 31 is supported at paragraph [0028] and Figure 2.

4. Response to the Claim Rejections under 35 USC 102

Claims 1-3, 5 and 6 stand rejected under 35 USC 102(b) as being anticipated by a paper by Shane et al. entitled “Urban Environmental Sustainability Metrics: A Provisional Set” (“Shane”).

Independent claim 1 as amended patentably distinguishes over Shane for the following reasons.

Amended claim 1 defines a method for assessing the impact of an industrial or infrastructure activity on sustainability of an enterprise or institution. The method of claim 1 comprises steps (a) to (g). According to this method, a number of categories are identified which together are representative of the impact of the activity on sustainability of the enterprise or institution (step a), and the categories are weighted (step b) – for example according to relative importance. As

defined in new claims 12 and 18, the categories can relate to environmental or social impacts of an activity, and can include materials, energy, emissions, effluents, by-products, toxics, water use, land use, health and safety of workers, community involvement, and community impacts.

The next step is to identify a number of indicators (step c) which affect the impact of the activity on sustainability. At least one indicator is associated with each of the categories. For example, the category referred to as “materials” may preferably include one or more of the following indicators: process yield/raw material usage; and material costs, as recited by new claim 13. Further examples of indicators for a number of categories are given in new claims 14-17 and 20-22.

Steps (d) and (e) relate to defining an indicator score for each of the indicators. Preferably, the indicator score is a numerical value, as recited by new claim 25. The indicator scores for each category are then compiled to generate aggregate scores for the categories (step f). These aggregate scores are to some extent independent of the specific indicators which are selected, thereby enhancing flexibility of the method. This feature is further discussed below.

The aggregate scores for the categories are then compiled according to weight in order to generate a sustainability score (step g) representative of the impact of the activity on the sustainability of the enterprise or institution.

Amended claim 1 therefore defines a very versatile method in which an overall sustainability score is obtained over a range of categories relevant to the impact of an activity on sustainability. The categories can range from those relevant to environmental impact to those which are relevant to social impact of the activity. The indicators selected for the categories are preferably those which have the greatest impact on sustainability, and are preferably independently identified for each activity (claim 27). As a result, the indicators selected for each specific activity may differ from other activities being assessed (claim 28), while maintaining comparability of the results of the aggregate scores for the categories and the sustainability scores for a number of activities. This permits the method according to the invention to provide a sustainability score which represents the impact on sustainability of a single activity, a number of activities of the same or different nature, a number of facilities in a division, a number of divisions in an organization, and the organization as a whole.

By way of comparison, the method described by the Shane reference is more limited in scope. Shane attempts to identify a provision set of metrics for use in assessing and comparing the environmental sustainability of urban areas. According to Shane, a set of 10 categories is created, and one metric is selected as being representative of each category (see Tables 1 and 2). For example, air quality was selected as one of the categories and a composite air quality index was selected as the metric for assessing air quality. By comparing it to a standard, the value of each metric can be converted to a score (eg. Table 3 – page 659). The scores can be aggregated by adding the scores for the individual metrics to generate an aggregate score (page 655, para. 6)

or the individual metric scores can be displayed in chart form (Figure 2, page 655). In order to enhance comparability of the results generated for various urban areas, the metrics are the same for each urban area.

Although Shane describes a relatively simple method for assessing the sustainability of urban areas, the Shane method lacks the flexibility inherent in the claimed method, at least partly because it lacks the following elements of the method of amended claim 1:

- while Shane identifies a plurality of categories, it does not teach or suggest “assigning a weight to each of said categories” as recited by amended claim 1, step (b)
- Shane provides a mere aggregation of the metric scores and does not teach or suggest the step of generating an aggregate score for each category as in step (f) of claim 1 which recites: “for each said category, compiling the indicator scores for the at least one indicator associated with that category to generate an aggregate score for that category”
- Because Shane merely aggregates the scores for the individual metrics, it also does not teach or suggest “compiling the aggregate scores for said categories to generate a sustainability score representative of the impact of the activity on the sustainability of said enterprise or institution”, as recited by step (g) of claim 1.

For at least the reasons set out above, independent claim 1 and all the dependent claims now on file are patentable over Shane.

Further to the above comments, Applicant disagrees with the Examiner's comments regarding original claim 2 (pages 3-4 of office action), which requires periodic repetition of steps (a) to (d) to determine how the impact of the activity changes over time. Claim 2 as amended similarly requires periodic repetition of steps (c) to (g). Step (a) of original claim 2 and step (c) of amended claim 2 require identification of the indicators. This step is not repeated in the Shane method, which uses the same indicators in each repetition of the method, whether for the same or a different urban area. For this additional reason, claim 2 is patentable over Shane.

In addition, Applicant disagrees with the Examiner's comments regarding the teachings of Shane with regard to claim 6 (page 5 of office action). The Examiner refers to page 654, paragraphs 4, 6 and 7 of Shane as disclosing capital projects to develop the infrastructure of an existing facility (i.e. an urban area). Applicant points out that these paragraphs on page 654 relate to the preferred aspects of a city's environmental management plan, the existence of which may be one of the metrics under consideration by the Shane method. While an environmental management plan may include capital projects, there is no teaching or suggestion by Shane that such a capital project may comprise the specific activity whose impact on sustainability is being assessed, as is the case in the method of claim 6. For this additional reason, claim 6 is patentable over Shane.

5. Response to the Claim Rejections under 35 USC 103

Claims 4, 7-9 and 10 stand rejected under 35 USC 103(a) as being unpatentable over Shane.

This rejection has been rendered moot with regard to claim 8, which has been cancelled. Claims 4, 7, 9 and 10 as amended are all directly or indirectly dependent on claim 1, as are all the other dependent claims now on file.

The differences between amended claim 1 and Shane have already been described above. The differences noted above are neither taught nor suggested by Shane and provide the method of amended claim 1 with flexibility not available to users of the Shane method. Accordingly, the method according to the invention is useful for assessing the impact on sustainability of a single activity, a number of activities of the same or different nature, a number of facilities in a division, a number of divisions in an organization, and the organization as a whole. The Shane system is capable only of a limited assessment and comparison of the sustainability of urban areas using a common set of metrics. The improvements provided by the present invention are not taught or suggested by Shane, nor would it be obvious to modify the limited method disclosed by Shane to provide the enhancements inherent in the method of claim 1.

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For at least these reasons, independent claim 1 and all the dependent claims now on file are patentable over Shane.

Respectfully submitted,

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